

What Is Claimed Is:

- 10017772-102901
1. A micromechanical component, comprising:  
a substrate; ~~and~~ ✓  
a diaphragm positioned on the substrate; and  
a region arranged underneath the diaphragm and made of a porous material, the region mechanically supporting and thermally insulating the diaphragm.
  2. The micromechanical component according to claim 1, wherein:  
the porous material is formed from a material of the substrate.
  3. The micromechanical component according to claim 1, wherein:  
a hollow space is formed underneath the region.
  4. ✓ The micromechanical component according to claim 1, wherein:  
the diaphragm ~~layer~~ is formed by oxidizing a surface of the substrate and a surface of the region.
  5. The micromechanical component according to claim 1, wherein:  
the region is completely oxidized.
  6. ✓ The micromechanical component according to claim 1, further comprising:  
a dew point sensor, including:  
a thermocouple for measuring a temperature and arranged above the region,  
an interdigital capacitor made of the porous material and arranged above the region,  
a Peltier element device including at least one Peltier element for heating and cooling the diaphragm, and  
a dew point measuring device for measuring a dew point with the aid of one of the following:  
a mirror for optical evaluation, and  
a capacitance of the interdigital capacitor and a temperature measured by the thermocouple.

- 1017772-102901
7. The micromechanical component according to claim 1, further comprising:  
a heat radiation sensor including:  
an absorption device for absorbing a heat radiation provided above the region,  
a Peltier element device including at least one Peltier element for generating a thermoelectric voltage corresponding to a temperature difference between a diaphragm region next to the region and a diaphragm region above the region, and  
a temperature measuring device for measuring a temperature in the diaphragm region above the region.
  8. The micromechanical component according to claim 7, wherein:  
the temperature measuring device measures the temperature in the diaphragm region above the region based upon a thermoelectric voltage.
  9. The micromechanical component according to claim 7, further comprising:  
a control device that operates the Peltier element device to control the temperature in the diaphragm region above the region, wherein:  
the temperature measuring device measures the temperature in the diaphragm region above the region based on a regulated output.
  10. A method for manufacturing a micromechanical component including a substrate and a diaphragm positioned on the substrate, comprising the step of:  
providing at least temporarily a region made of a porous material underneath the diaphragm in order to mechanically support and thermally insulate the diaphragm.
  11. The method according to claim 10, further comprising the step of:  
removing the region again after a formation of the diaphragm.